



VERMONT ENERGY
INVESTMENT CORPORATION

Delivering *Really* Big Energy Efficiency

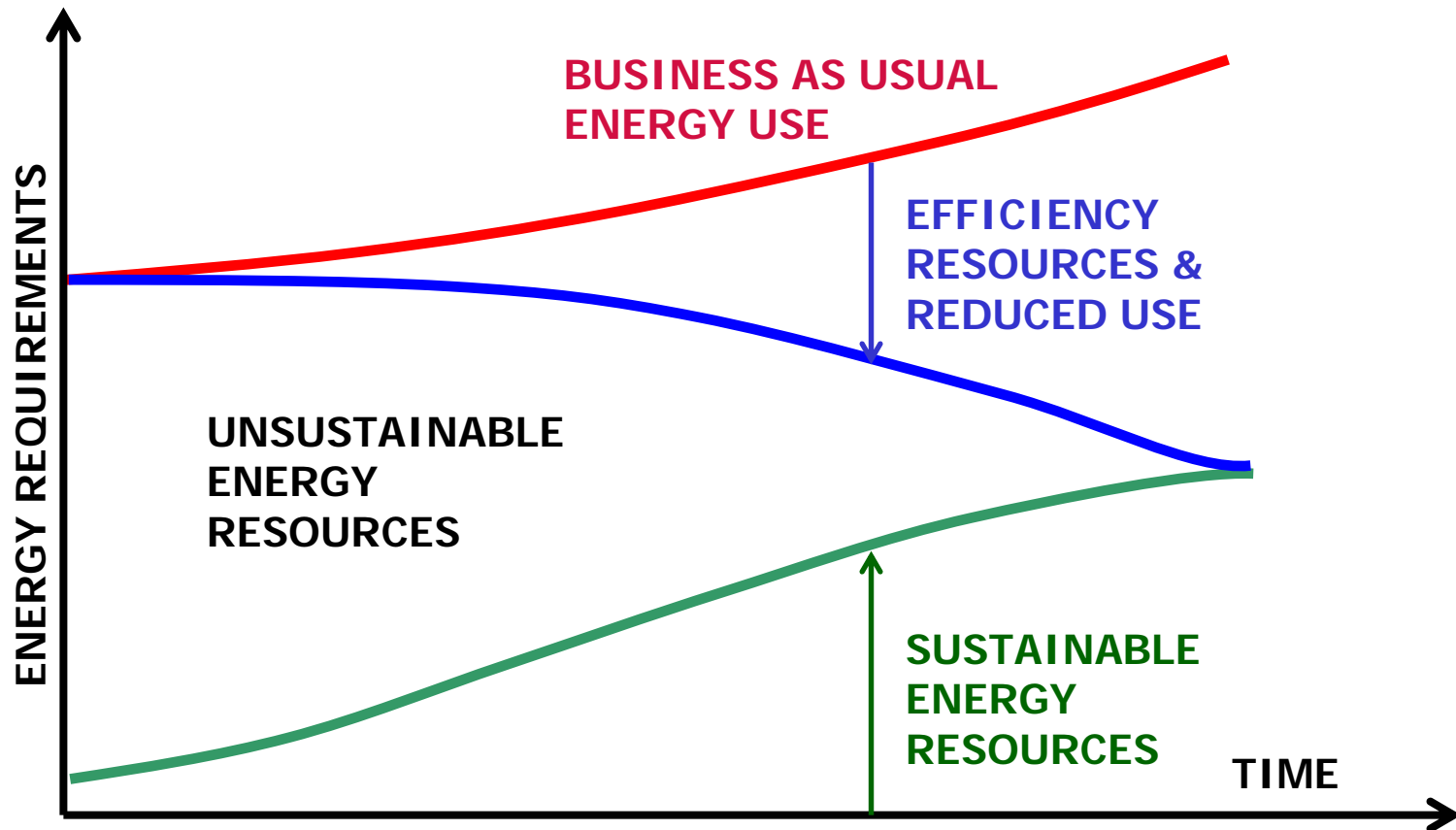
– An Implementer's Perspective

Energy Efficiency as a Resource
October 2, 2007

Blair Hamilton



Moving to a Sustainable Energy Future



How Much Efficiency Will We Have to Deliver?

Because efficiency is our cleanest
and cheapest energy
resource....

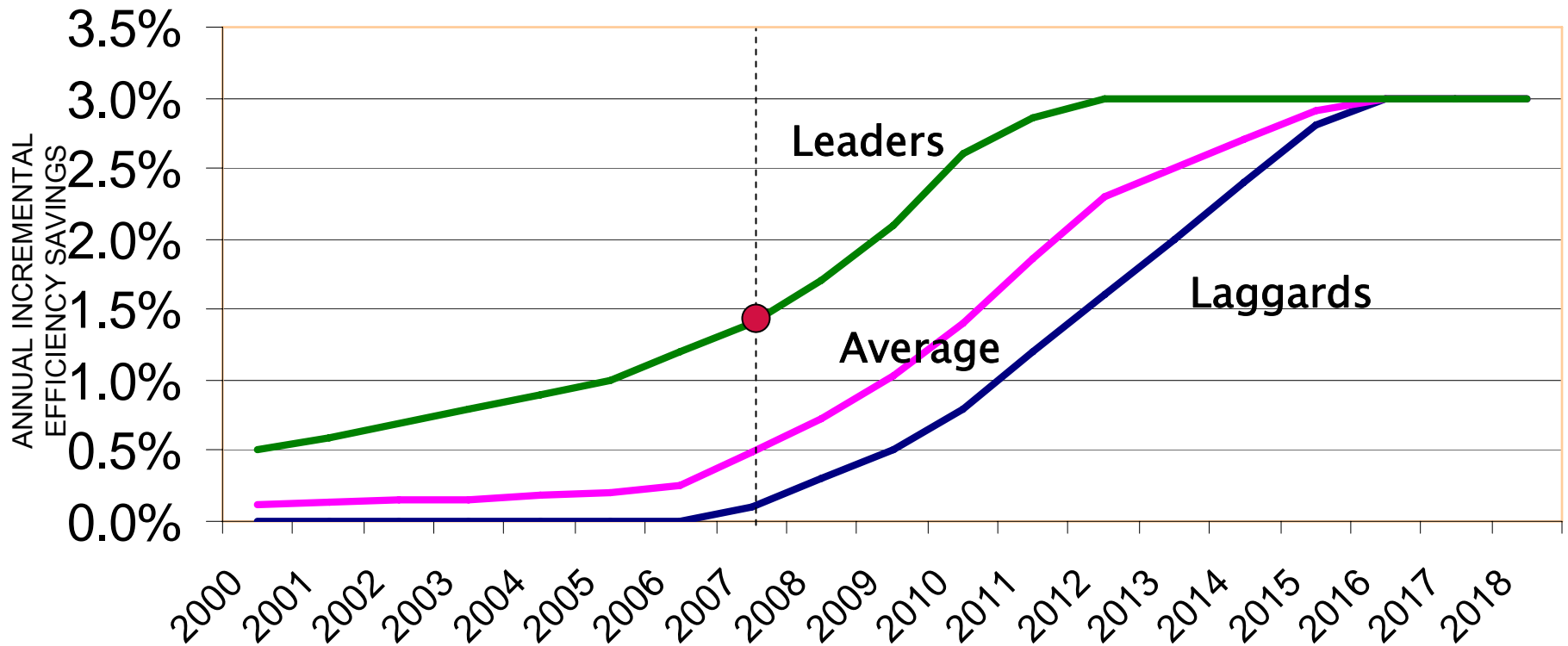
- It *should* and *will* be called upon to provide **30 – 50 %** of our future energy requirements

Delivering **30%** of energy resource needs twenty years from now will require ramping up to incremental savings of **3%** per year in the next ten years

(assuming 1.5% underlying load growth)

Raising Our Expectations

A scenario for ramping up annual efficiency savings as a portion of load



Raising Our Expectations

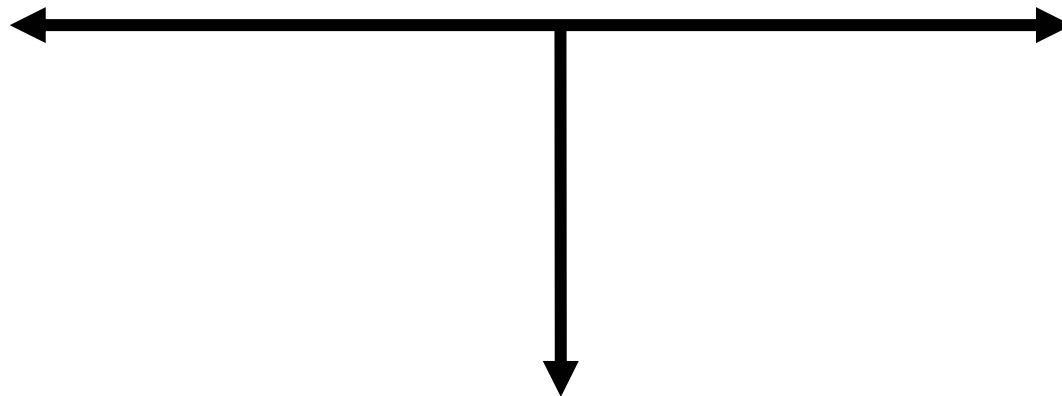
- The rate of efficiency resources delivery of the very best states and utilities in the country will have to **double**
- For average states and utilities that are already active, it will have to increase **six fold**
- For those that aren't doing much, expectations of **enormous** ramp-up need to be adopted

What Do We Need to Do?

Start by doing **much** more of what we already know how to do...

Ramp up to much **wider** and **deeper** acquisition of energy efficiency resources

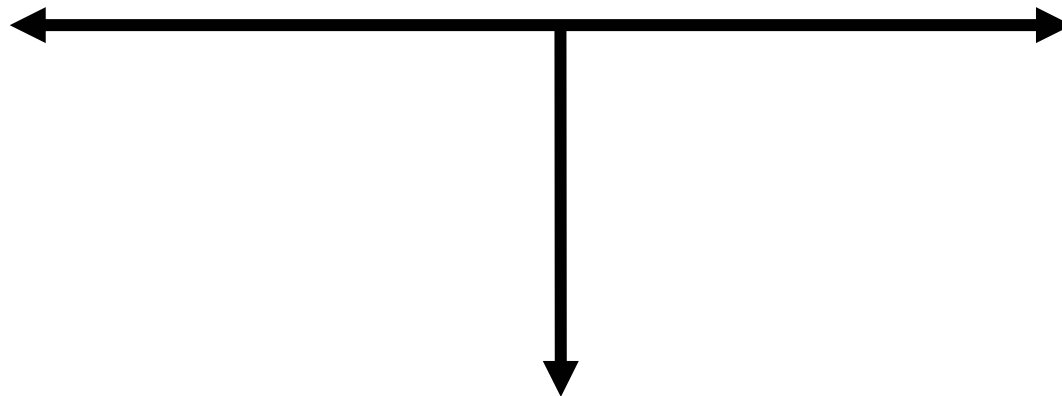
***Wider:** Every State aggressively ramping up*



***Deeper:** Working toward +3%/year goal*

Ramp up to much **wider** and **deeper**
acquisition of energy efficiency resources

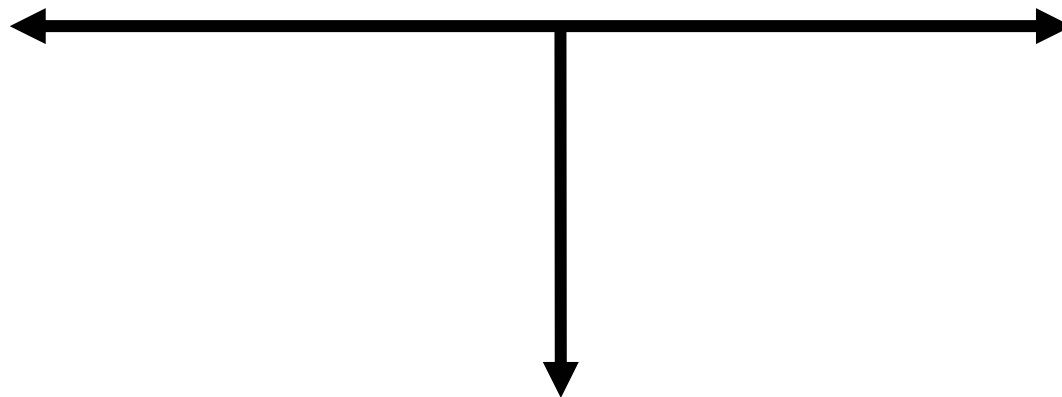
Wider: More participants



Deeper: More savings per participant

Ramp up to much **wider** and **deeper**
acquisition of energy efficiency resources

***Wider:** More decisions affected*



***Deeper:** More savings per decision*



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Go After Much Deeper Savings in Lost-Opportunity Markets

For example, in New Construction...

Much higher Targets



LEED



Net-zero buildings



50 % + commercial buildings

*and Accelerated Adoption as
Requirements*



Going Deeper in Retrofit of Existing Buildings

80% Reduction by 2050?

- “One size fits all” goes only so deep – We’ll need more *custom* approaches for sub-markets and niche markets
- Much more *comprehensive* – bundles of measures for all end uses and all fuels
- *Jump start* with massive public investment to develop infrastructure
- Transition to *time-of-sale* mechanisms, first disclosure and then phased implementation of TOS standards

More Integration



**Integrated
all-fuels
efficiency**



**Integration with
renewables**



The Return of Direct Install

**Santa Monica
Energy
Fitness
(1985)**

**United
Illuminating
Homeworks
(1989)**

**PEPCO
Apartments Plus
(1994)**

**WEC Direct Install
Program
(1992)**

**CA small
business Direct
Install Programs
(2005-)**

**NGRID
Small Business Program
(1989-)**

1985

1990

1995

2000

2005

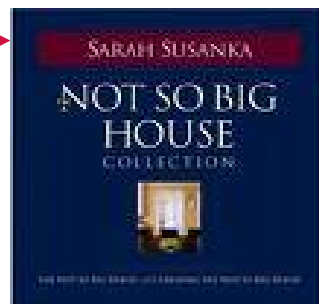
More Upstream Market Focus

- More buy-down procurements (e.g., CFLs)
- Supplier-focused strategies (HPT8s, refrigeration)
- More work with and through chain partners
- Franchise approach (building and equipment specs)
- Earlier and much more aggressive Codes and Standards



Absolute Use Matters

- It's time to focus on appropriately sized buildings, equipment, and appliances
- Find ways to make downsizing an attribute, amenity, and benefit, rather than a sacrifice
- Make “using less” a value, rather than a sacrifice



Address our biggest barrier to massive efficiency

Barrier is not *technical* or *economic* –

It's INFRASTRUCTURE

Infrastructure Needs

- A deep, competitive infrastructure of efficiency-related service providers needs to be ready and able to provide services
- An enormous ramp-up
 - We'll need tens of thousands of people
 - For this not to be the barrier, we need training at all levels to ready a new workforce
- Big transformations like this usually require a lot of time
 - We need to get going now

We'll need to create a market where..

- Providers of efficiency services and products are vigorously competing for customers
- Customers have a broad range of attractive efficiency offers to choose from
- Efficient products, equipment, and buildings are *less* expensive than inefficient ones, using pricing mechanisms that reflect energy costs

Efficiency should be as easy to buy as energy supply...

- One stop, no hassle, one phone call away
- As easy to buy as the tank of oil it displaces over time
- As easy as pulling into the gas station and pumping gas
- Efficiency products and services as ubiquitous as convenience stores

